

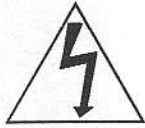
VT-3

Home Theater Reference System

OWNER'S MANUAL

Now Hear This — 527 Stone Road, Benicia, CA 94510
Technical Support 800-NHT-9993 Parts & Warranty 800-225-9847

IMPORTANT SAFETY INSTRUCTIONS



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with the arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

1. READ INSTRUCTIONS - All safety and operating instructions should be read before the appliance is operated.
2. RETAIN INSTRUCTIONS - Safety and operating instructions should be retained for future reference.
3. HEED WARNINGS - All warnings on the appliance and in operating instructions should be adhered to.
4. FOLLOW INSTRUCTIONS - All operating and use instructions should be followed.
5. WATER AND MOISTURE - The appliance should not be used near water - near bathtub, washbowl, kitchen sink, laundry tub; in a wet basement near a swimming pool, etc.
6. CARTS AND STANDS - Do not place this product on an unstable cart, stand, tripod, bracket, or table. The appliance should be used only with a cart or stand that is recommended by the manufacturer.
7. VENTILATION - The appliance should be situated so that its location and position do not interfere with proper ventilation. The appliance should not be situated on a bed, sofa, rug, or any surface that may obstruct cabinet openings.
8. HEAT - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other devices (including amplifiers) that produce heat.
9. POWER SOURCES - This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type power supply in your home, consult your product dealer or local power company. For products intended to operate from battery power or other sources, refer to the operating instructions.
10. POWER CORD PROTECTION - Power supply cords should be routed so that they are not likely to be walked upon or pinched by items placed upon or against them, paying attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
11. POLARIZED PLUG - This appliance is equipped with a polarized line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact your electrician to replace your obsolete outlet. Do not attempt to defeat this safety feature.
12. LIGHTNING - For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power line surges.
13. OVERLOADING - Do not overload wall outlets, extension cords, or integral convenience receptacles, as this can result in a risk of fire or electric shock.
14. CLEANING - Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
15. NON-USE PERIODS - This amplifier should be unplugged from the outlet when the appliance is left unused for a long period of time.
16. OBJECT AND LIQUID ENTRY - Never push objects of any kind into this product through openings, as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on this product.
17. DAMAGE REQUIRING SERVICE - The appliance should be serviced by qualified personnel when:
 - a. The power supply cord or plug has been damaged; or
 - b. Objects have fallen on or liquid has been spilled into the appliance; or
 - c. The appliance has been exposed to rain; or
 - d. The appliance does not appear to operate normally or exhibits a marked change in performance; or
 - e. The appliance has been dropped or the enclosure is damaged.
18. SERVICING - Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel. For service warranty information call the NHT Hotline number: 1-800-NHT-9993.
19. REPLACEMENT PARTS - When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or that have the same characteristics as the original part. Unauthorized substitution may result in fire, electric shock, or other hazards.
20. SAFETY CHECK - Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

CAUTION

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

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Thank you for your purchase of the NHT Model VT-3 Home Theater Reference System. Please take a few minutes to read through this Owner's Manual prior to installing your new speakers. The information provided will help you to obtain maximum performance from your audio system. If you have questions or need assistance at any time during the installation or operation of your new speaker, please call your NHT Dealer or our Toll-Free Customer Hotline at:

1-800-225-9847

Please retain the Model VT-3's packaging to protect the speaker in the event that you move or transport it.

Model VT-3 Specifications

Loudspeaker: VT-3 Towers

- **System Type:** 4-way & 2-way acoustic suspension
- **Driver Complement:** Two 10" side loaded subwoofers, Two 6.25" lower midranges, One 5.25" upper midrange, 1" liquid-cooled aluminum dome tweeter, 5.25" rear-firing midrange, 1" rear-firing soft-dome tweeter; All Video shielded
- **Crossover:** Active 100Hz 12dB/octave, passive 250Hz 12dB/octave & 2.7kHz 18dB/octave
- **Frequency Response:** 21Hz - 26kHz, +/- 3db
- **Sensitivity:** 87db (2.83V at 1M)
- **Impedance:** 6 ohms
- **Recommended Amplifier Power:** 30W - 300W
- **Input Connections:** Two pairs of gold plated 5-way binding posts; 8-pin mini-D.I.N. input
- **Weight:** 130 lbs. each
- **Dimensions:** 48"H x 8"W x 22.25"D
- **Finish:** Italian satin black laminate

Electronics: VT-3 Controller

- **Inputs:** Gold-plated RCA connectors - L, R, LFE from surround preamplifier
- **Outputs:** Gold-plated RCAs - L&R to main amp; LFE to optional subwoofer; 8-pin mini-D.I.N. output to VT-3 towers
- **Frequency Response:** 100Hz – 100kHz +/- 3dB
- **Total Harmonic Distortion:** 0.005%
- **Signal to Noise Ratio:** 103dB
- **Input Sensitivity:** Variable
- **Input Impedance:** 10K ohms
- **Voltage Gain at Full Volume:** 24dB
- **Weight:** 5lbs.
- **Dimensions:** 2"H x 16"W x 8"D
- **Finish:** Matte black

Electronics: VT-3 Subwoofer Amplifiers

- **Inputs:** 8-pin mini-D.I.N. input
- **Power:** 500W monoaural
- **Frequency Response:** 20 – 100Hz +/- 3dB
- **Total Harmonic Distortion at Full Rated Power:** 0.3%
- **Signal to Noise Ratio:** 95dB
- **Voltage Gain:** 26dB

Specifications are subject to change without notice, in accordance with our policy of continuously upgrading the performance of our products.

■ Design

NHT products are designed to deliver refined, musical sound from attractive and affordable packages. Our efforts are guided by the study of human hearing and are optimized for real world use. Every NHT product undergoes rigorous testing and quality control at the factory to ensure you years of listening pleasure.

The NHT VT-3 Home Theater Reference system is designed to optimize one loudspeaker system for the divergent imaging and bass requirements of audio and home theater. Two different modes of operation are selectable: Audio (for 2 channel stereo and discreet multi-channel music reproduction) and Video (for multi-channel home theater). The VT-3 features an outboard Controller (with remote) that allows convenient front-panel selection of Audio mode or Video mode and adjustment of volume, filtering and equalization for the subwoofers. It employs four high output 10" subwoofers (two per side) similar to those used in our SubOne and SubTwo Subwoofers. They are mounted vertically in a solidly built, sealed rectangular enclosure. The two (one per side) built-in 500-watt amplifiers use patented Bob Carver/Sunfire technology, which allows them to deliver very high output power to the subwoofers in an efficient and cool-running manner.

The VT-3 was designed to be first and foremost a musical speaker with flat frequency response, low distortion, extended bass and precise stereo imaging (Audio mode). To optimize the VT-3's radiation characteristics for home theater use (Video mode), we employ rear-firing, ambient drivers to create a more spacious but less precise soundstage. These ambient drivers operate at a reduced level so that their operation does not effect the system's overall tonal balance. Operating the VT-3 in Video mode also changes the output of the subwoofers. They are equalized to provide more mid-bass output (when compared to the Audio mode) to emphasize the low frequency effects added to movie soundtracks.

fig. A Amplifier

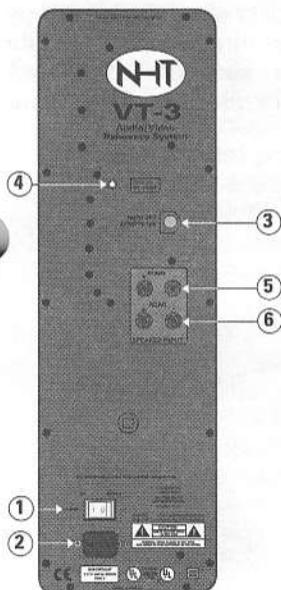


fig. B Controller

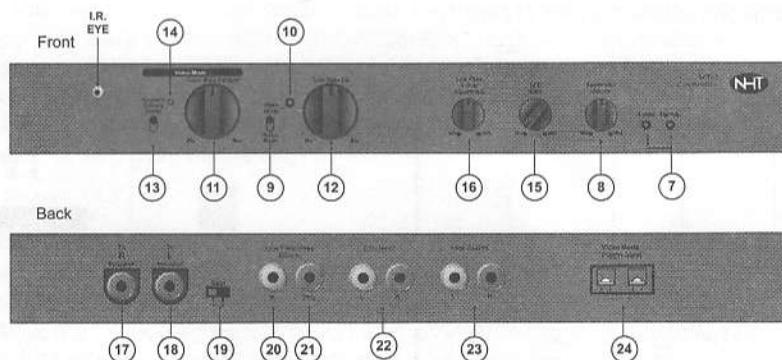
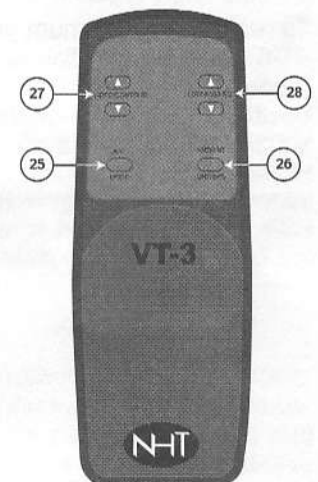


fig. C Remote



Amp (Figure A)

1. Power Switch - Activates power for subwoofer amplifier and Controller.
2. AC Power Input
3. Subwoofer Input - Input for 8-pin D.I.N. connector from Controller.
4. Power Indicator - The green light is lit when the system is on.
5. Speaker Input - Main
6. Speaker Input - Rear

Controller (Figure B)

Front of Controller

7. Standby Indicator -
The amber light is lit when the subwoofer is in standby mode.
The Power Indicator is lit when the system is active.
8. Subwoofer Volume Control - Adjust the loudness of the subwoofers.
9. Audio / Video Switch
10. Video Mode Active LED
11. Bass Contour Knob
12. Low Bass EQ. Knob
13. Ambient Drivers Active Switch

14. Ambient Drivers Active LED
15. LFE Gain Knob
16. Low Pass Filter Knob

Back of Controller

17. Subwoofer Output Right
18. Subwoofer output Left
19. Subwoofer Gain Selector - Allows for additional gain for low input signals.
20. LFE Input
21. LFE Thru
22. Line-In - Line-level RCA input connectors
23. Line-Output - Line-level RCA output jacks to receiver / main amplifier.
24. Ext. Trigger Input - enables video mode when +5V is present.

Remote (Figure C)

25. A/V switch
26. Ambient drivers switch
27. Video Bass Contour up/down
28. Low Bass EQ. up/down

■ SpikeKit installation

A SpikeKit is included with the Model VT-3 to provide optimum stability and to firmly couple the speakers to the floor for improved bass performance (as if the 130+lbs of wood, speakers and electronics wasn't enough!). Each VT-3 loudspeaker is shipped with its own SpikeKit. **Caution: the VT-3 is unstable without the SpikeKit (or at least the stabilizer bars) installed.**

To begin assembly, unpack the SpikeKit and inspect all the parts. The SpikeKit includes: (2) aluminum stabilizer bars, (4) aluminum cones, (4) stainless steel allen studs, (1) allen head wrench, (8) Phillips head machine screws and (4) rubber feet. **Important: We recommend installing only the stabilizer bars until final placement of the speakers is determined. This makes the speakers much easier to move.** Carefully turn the speakers upside down, and attach the stabilizer bars with the Phillips head machine screws, using a #3 Phillips screwdriver (see fig 1). When installing the bars onto the bottom of the speaker, use your fingers to start all the machine screws in their holes before tightening them down. This will prevent cross-threading.

Once you have found the ideal location for your speakers, you are ready to install the metal cones. Have someone help you: While one person tilts and holds the speaker to one side, carefully install the cones flush against the stabilizer bars, using the supplied allen studs. The speakers are awkward to move after the cones are installed. Caution: The cones are very sharp. To avoid injury, use extreme care when handling and installing them.

■ Placement

The VT-3 is a floorstanding tower speaker that requires no stands or mounting hardware other than the included SpikeKit. The VT-3 is designed for indoor use only. As the VT-3 is a magnetically shielded loudspeaker, placement next to a television will not distort or discolor the picture.

To realize the maximum performance of the VT-3, you should invest some time for fine-tuning adjustments. Follow steps #1-6, referring the diagram in fig. 2. Prior to beginning this process, we suggest you select two or three of your favorite recordings to use while you optimize the speaker placement. Each time you move the speakers to a new position, take note of the changes you are hearing. This will help you to find the ultimate placement for your VT-3s. Be sure to have a tape measure and level handy.

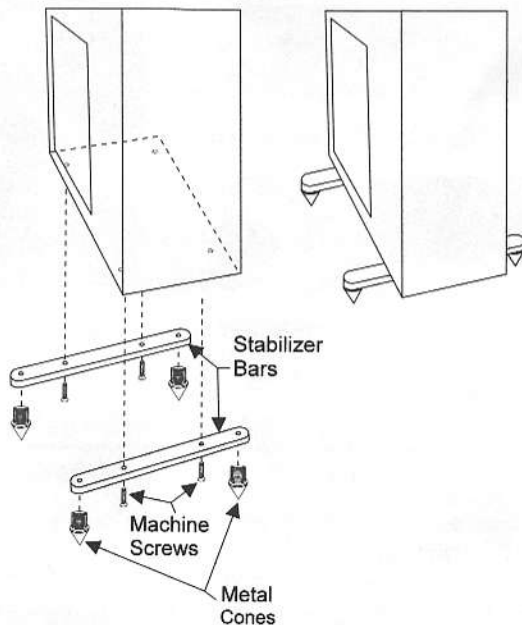


fig. 1

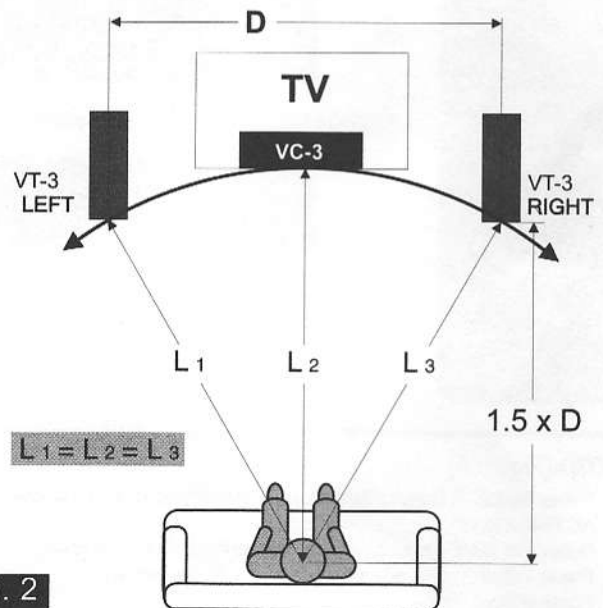


fig. 2

1. Move the speakers within 10"-12" of the front wall.

Unlike many speakers, the VT-3s are designed to be placed close to the front wall. This placement allows optimum loading of the low frequency drivers. It also loads the ambient or rear-firing drivers for optimum effect. 10"-12" spacing will produce excellent results in most situations, but you can place the VT-3s as close as 6" or as far as 24" from the wall to accommodate your room's acoustic signature.

2. Determine rough placement by listening position.

For the smoothest response, the distance from the sidewalls should be different than the distance from the front wall. The speakers should be arranged as symmetrically as possible: Equidistant from the side walls, perpendicular to the front wall and parallel to each other. The front-firing drivers should face the listening area without obstruction from

furniture. Arrange the speakers so that the distance between the listener and the center of the speaker plane is 1.5 times the distance between the speakers. This configuration puts the listener in the center of the stereo image. Begin your listening by sitting centered between the speakers. While listening to the first selection, close your eyes and listen for image focus and depth of sound between the speakers. Balance this image focus and depth with apparent stage width, listening for sound beyond the boundaries of the left and right speakers. Play all three recordings before completing this step.

Note:

Image Focus: *The localizability of a particular musical event in the sound field (e.g., the bass is to the left, the saxophone is to the right, and the piano is centered between them).*

Depth of sound: *The sensation that one musical event occurs behind another. The music shouldn't seem confined to a flat plane between the speakers (e.g., the piano is centered behind the bass and saxophone).*

3. Determine fine placement by moving the speakers inward or outward from each other. Move the VT-3s no more than 1" either toward or away from each other. Initially, make sure that the speakers are parallel to each other. Play the same three recordings again, listening for image focus, stage width and depth. Evaluate whether there is an improvement. If the overall performance is improved, mark the position with a piece of masking tape, and continue this process until you have determined the best balance of imaging, depth and soundstage width. A small degree of toe-in may be necessary to obtain the best image focus. Determine the toe-in after you are satisfied with the depth and width of the soundstage. No more than 10 degrees should be required (i.e., the outside corner of the speaker is about 1" farther from the front wall than the inside corner).
4. Install the metal cones. Now that you have the speakers in the best-sounding position, install the metal cones on to the stabilizer bars (refer to SpikeKit installation above). Once all four cones are installed, recheck your measurements, making sure that the speakers are still exactly where you want them.
5. Adjust speaker tilt. To start, adjust the cones as needed to ensure the VT-3 is level and does not rock in any direction (use your level to be sure). Experiment with the vertical axis by raising and lowering your ear level in the listening position. At one particular vertical position, you may notice more ambience and depth in the sound stage. If the improvement occurs when your ears are at a lower position, raise the height at the rear of speakers by slowly unscrewing the two metal cones on the rear stabilizer bar. Likewise, if the improved sound occurs when your ears are at a higher position, raise the height at the front of the speaker by slowly unscrewing the two metal cones on the front stabilizer bar. Be sure not to unscrew too much, or the cones may come off.
6. Final points to remember. You may want to repeat the setup procedures at some point after you have a chance to live with the VT-3s for a while. You will find that subtle improvements can be made that you may have overlooked during the initial set-up. Experimentation is the key to finding the best arrangements in your listening environment. Be patient, have fun, and remember that small changes in speaker position can sometimes have a significant effect on the sound. In addition, room furnishings play an important role in absorbing and reflecting soundwaves. Midrange and high frequencies in particular will be absorbed by soft furnishings such as sofas, carpets and curtains. A large number of these soft furnishings will dull the sound, while a "live" room with few furnishings will brighten the sound.

■ Connections

Before connecting speakers to your system, it is very important that you turn off the power to your amplifier / receiver to avoid damage to the equipment.

To minimize noise pickup, segregate cables by function. Do not run low level signal cables parallel to power cables, or to digital cables. Also do not run speaker cables parallel to power cords or digital cables. If different types of cables are placed near each other at some place in your system, separate them by the maximum practical distance and cross them at right angles where they meet. Do not tie AC power cords and speaker cables together.

■ General Connections

The VT-3 subwoofer amplifiers and Controller are connected via two 20-foot-long 8-pin D.I.N cables. Only the subwoofer amplifiers are plugged directly into the AC outlet in the wall. The VT-3 Controller receives power via the 8-pin D.I.N cable. If the distance between the subwoofer amplifiers and the Controller is greater than twenty feet, NHT offers an extension cable (Model X20, which is 20 feet long and couples with the original cable).

On the back of the VT-3's subwoofer amplifier plate there are two pairs of binding posts (fig. A) with metal shorting straps connecting top and bottom pairs. There are two different ways to connect the VT-3s to your system: With a single amplifier, or with two amplifiers and two sets of speaker cable. Keep in mind that the VT-3s' subwoofers are already biamplified via their own 500W power amplifiers.

Single Amplifier Method

To run the VT-3s with one external amplifier / receiver, simply connect the speaker cables to either the top set or bottom set of binding posts (it doesn't matter which). Leave the shorting straps in place.

Two Amplifier Method

Complete isolation can be achieved by the use of two separate amplifiers, one to power the rear "ambient" drivers and one to power the midrange / high frequency drivers. The two-amplifier method provides increased dynamic range and power output, as it allows both amplifiers to concentrate all their headroom toward a specific group of drivers, sparing them the task of driving all the speakers.

You will need two amplifiers: A main amplifier for the upper range drivers (top pair of binding posts), and a second amplifier for the rear "ambient" drivers. **Remove the shorting straps.**

Connecting the subwoofer amplifiers

Connect the right VT-3 tower subwoofer amplifier to the "R Speaker" output from the Controller with the provided 8-pin D.I.N. cable. Connect the left VT-3 tower subwoofer amplifier to the "L Speaker" output from the Controller with the other 8-pin D.I.N. cable. Be careful not to mis-insert the D.I.N. cable, as the pins are small and can bend easily. Make sure the cable connector is fully inserted into the socket.

Note: Both D.I.N. cables must be attached to the Controller in order for it to function properly. This is because the left speaker powers the analog audio functions and the right speaker powers the digital and remote control functions. By keeping the power supplies separate, the potential digital noise generated will be kept out of the critical analog path.

■ Audio Connections

The VT-3 Controller was designed for a separate processor and amplifiers or for a receiver featuring pre-amp out and main in RCA jacks. No speaker level connections are available with the VT-3 Controller.

Connect the pre-amp or main outs from your processor or receiver to the Line Input on the back of the VT-3 controller. If you are not running a separate subwoofer, like a SubTwo, you can also connect the LFE output to the Low Frequency Effects In jack. The Line Outputs from the back of the Controller connect to the main inputs on your receiver or amplifier. Be careful to maintain the proper left and right polarity.

■ Power Connections

1. Connect the power cord to the right subwoofer amplifier and an AC wall outlet.
2. Connect the power cord to the left subwoofer amplifier and an AC wall outlet.
3. Switch the power to "Auto" on the right speaker.
4. Switch the power to "Auto" on the left speaker.

■ Explanation of Features (see figure B)

The **SUBWOOFER VOLUME** control allows you to adjust the volume of the subwoofers relative to the rest of the system. Many listeners make the mistake of setting the subwoofer level too high, which can cause excess bloat and loss of detail and musicality. A properly set-up subwoofer blends in with the other speakers and does not call attention to itself. Observe the following guidelines for volume setting:

Turn down the volume control on the Controller to its lowest position (counter-clockwise). Turn on your audio system. Play some music you are familiar with and set your receiver / preamplifier volume to a comfortable listening level. Slowly increase the volume on the VT-3 Controller, listening for the proper level balance. When the output of the subwoofers is balanced with the rest of the system, you will hear improved bass extension, but you should be unaware that it is coming from the subwoofers!

From this point on, the volume control on your receiver / preamplifier will control the overall volume of your system, including the subwoofers.

The front panel **MUSIC / VIDEO MODE** switch and **VIDEO BASS CONTOUR** allow you to optimize the VT-3s for music listening or movie viewing, giving you the best of both worlds. When watching a movie, there is often a disparity between the size of the sonic space and the size of the visual space presented to you. Your eyes tell you that events are occurring in a large space, for example, while your ears tell you that events are occurring in a space roughly the size of your room. Activating the rear-firing drivers enhances the soundstage, allowing a closer match between sonic and visual spaces. The rear-firing drivers can be switched off if the enhancement is not desired. Similarly, when listening to music, many listeners prefer a flat bass response that does not emphasize any individual frequencies. Flat bass response more realistically reproduces the sound of live instruments. However, when watching movies in a home theater system, many listeners prefer a punchier, "boomier" sound that emphasizes sounds like explosions and gunfire. Subwoofers with more output in the mid-bass region tend to deliver this punch, at the expense of flat response. The Music/Video Mode switch allows you to add mid-bass punch if you so desire.

The **MUSIC / VIDEO MODE** switch determines the operating mode of the VT-3. In the MUSIC mode, the VT-3's response is flat for accurate musical reproduction. In the VIDEO mode, the response is changed for movie soundtrack reproduction. The blue light denotes VIDEO mode. While in VIDEO mode, the ambient drivers are selectable. The **AMBIENT DRIVERS ACTIVE** switch selects between the active and inactive state for the ambient drivers. The ambient drivers are active when the blue light is on. The AMBIENT DRIVERS ACTIVE switch functions only when the MUSIC / VIDEO MODE switch is in the VIDEO mode. The control of this feature is present on both the controller and IR remote.

VIDEO BASS CONTOUR provides bass boost, which is continuously variable from 0 to +7.5 dB, centered at 60Hz. The equalization has a fairly low Q, covering the range between 40Hz and the high frequency cutoff of the subwoofers. The response rolls off below 35Hz to provide greater power handling at elevated listening levels. VIDEO BASS CONTOUR is active only when the VT-3s are in VIDEO mode. The control of this feature is present on both the Controller and the IR remote.

***Note:** Q refers to the range of frequencies over which the equalization has an effect (low Q means a broad range of frequencies, high Q means a relatively narrow range of frequencies).*

The **LOW BASS EQ** provides gain, continuously adjustable from -7 to +7 dB, centered at 30Hz. It has a fairly high Q, which will leave the low-frequency crossover point of the subwoofers undisturbed. This is useful in controlling the lowest bass frequencies without effecting the mid- or upper bass. Rooms with concrete walls and floors tend to support output in the bottom octave, and may require a slight decrease of the LOW BASS EQ level. Rooms of lighter (wood) construction tend to provide relatively less support for the bottom octave and may need an increase in LOW BASS EQ level. The control of this feature is present on both the controller and IR remote, and it is active in both the MUSIC and VIDEO modes.

The continuously variable **LOW PASS X-OVER ADJUSTMENT** determines the range of frequencies that the subwoofers will reproduce. The Low Pass Filter is variable between 40Hz (low bass) and 180Hz (upper bass), to accommodate a variety of room conditions. Adjustment should begin with the indicator pointing in the "straight up" position. After adjusting the bass level, experiment with small changes clockwise to warm or thicken the lower midrange/upper bass, or counter-clockwise to lighten or thin the lower midrange/upper bass. Listening to male vocals will aid in finding a good setting for this control.

The **LFE GAIN** control allows for level matching between the main left and right inputs and the LFE input. You may feed the LFE output from your signal processor to the VT3 controller via the Low Frequency Effects In jack (and to a subwoofer or other devices via the Low Frequency Effects Thru jack). The LFE gain control allows you to set the level of the low frequency effects channel sent to the VT-3s relative to the total speaker output.

The **GAIN SWITCH** allows you to increase the line-level input sensitivity of the Controller by 10dB. This is useful if your receiver or preamplifier has a low line-level output voltage that limits your range of volume adjustability on the VT-3 controller.

The VT-3 has a **STANDBY MODE** feature that is automatic and requires no user adjustments. When no signal is present for 45 minutes, the VT-3 controller goes into Standby Mode, and it will use a minimum of power to remain "asleep". When the system is used again, it immediately turns on as soon as a signal is received. There is no need to turn the VT-3s on and off every time they are used.

The **VIDEO MODE TRIGGER INPUT** is an auxiliary trigger input that forces the VT-3 into the VIDEO mode. Many preamplifiers and processors have a trigger output (+4.5VDC to +25 VDC) which is enabled when the user selects a video function, such as DVD or DSS. If the trigger is active, the VT-3 processor will switch into VIDEO mode if the previous mode was MUSIC or stay in VIDEO if it was already in that mode. The system will remain in the VIDEO mode until it is switched back to MUSIC mode either by the IR remote or by the Controller.

■ Operation

The VT-3 system was designed to handle a wide range of listening levels, but every component has limits. It is important to use common sense and listen for signs of possible distress from the speakers. Noticeable distortion or harsh breakup is an indication that the speaker is running beyond its capacity, and the volume should be decreased. If you feel heat emanating from the front of any of the speakers, reduce the level immediately. Speaker damage most often occurs from sustained high volume levels, not from transient sounds or brief musical peaks. Excessive boosting of bass, treble, or equalizer controls can worsen the problem and is not recommended.

■ Maintenance

Your VT-3s have been designed for years of trouble-free operation and require minimal maintenance under normal use. The VT-3 cabinet may be cleaned using a damp cloth or a mild, non-abrasive glass cleaner. To clean the grill, first remove it from the speaker, then brush lightly with a soft brush or use a vacuum on its lowest setting. The VT-3 controller may be cleaned by wiping with a lint-free cloth. Do not expose the tower or Controller to direct sunlight, high temperatures or moisture. In the event that service is required, do not open the VT-3 amplifier or Controller. Refer the unit to a qualified service technician.

■ Troubleshooting

If the VT-3 fails to operate when both Power Switches are turned on, check the power cords and all the input and output connections thoroughly. If the status light on the controller is not on, verify that all the connections are properly made. If no light is present, contact your local Authorized NHT Dealer or NHT immediately for assistance.

**Limited Warranty
Valid Only in the U.S.A.**

Warranty Period

For the period of 5 years for parts and 5 years for labor from date of original purchase (the warranty period) from an authorized NHT dealer, Now Hear This (NHT) warrants that if our product fails to function properly under normal use due to a manufacturing defect when installed and operated according to the owner's manual instructions enclosed with the unit, it will be repaired or replaced with a unit of comparable value at the option of NHT without charge to you for parts or actual repair work. Parts supplied under this warranty may be new or rebuilt at the option of NHT.

What's Not Covered

This warranty does not cover any product which is used in any trade or business, or in an industrial or commercial application.

This warranty does not cover the cabinet or any appearance item, or any damage caused to the product resulting from: alterations, modifications not authorized in writing by NHT, accident, misuse or abuse, damage due to lightning or power surges, or being subjected to power in excess of the speaker's published power rating.

This warranty does not cover the cost of parts which would otherwise be provided without charge under this warranty, obtained from any source other than an authorized NHT service location. This warranty does not cover defects or damage caused by the use of unauthorized parts or labor or from improper maintenance.

Altered, defaced or removed serial numbers void this warranty.

Your Rights

The liability of NHT will be limited to the purchase price of the product, and NHT will not be liable for incidental or consequential damages. NHT limits its obligations under any implied warranties under state laws to a period not exceeding the warranty period. Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages. The above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

To Obtain Service

NHT has appointed a number of authorized service companies throughout the USA should your product ever require service. To receive warranty service, you will need to present your sales receipt showing place and date of original owner's transaction.

To find the name and address of the nearest authorized NHT service location, call or write:
AB Tech Services, 17C Airport Drive, Hopedale, MA 01747. 1-800-225-9847.
info@abtechservices.com

Keep this warranty with your sales receipt. Record date and place of purchase for future reference.